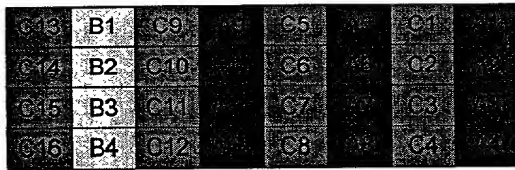


### VC mapping

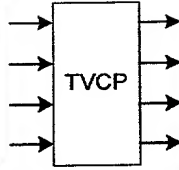
Virtual channel A: (2, 7, 5)  
 Virtual channel B: (1)  
 Virtual channel C: (3, 4, 6, 8)

Datapath width = 4 bytes  
 Number of STS-1 timeslots = 8

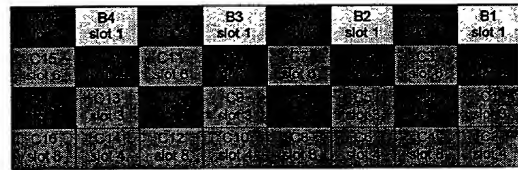
### System Side Per-VC data words



Time



### Line Side Timeslot-interleaved data words



Time

Figure 1: Example of virtual concatenation

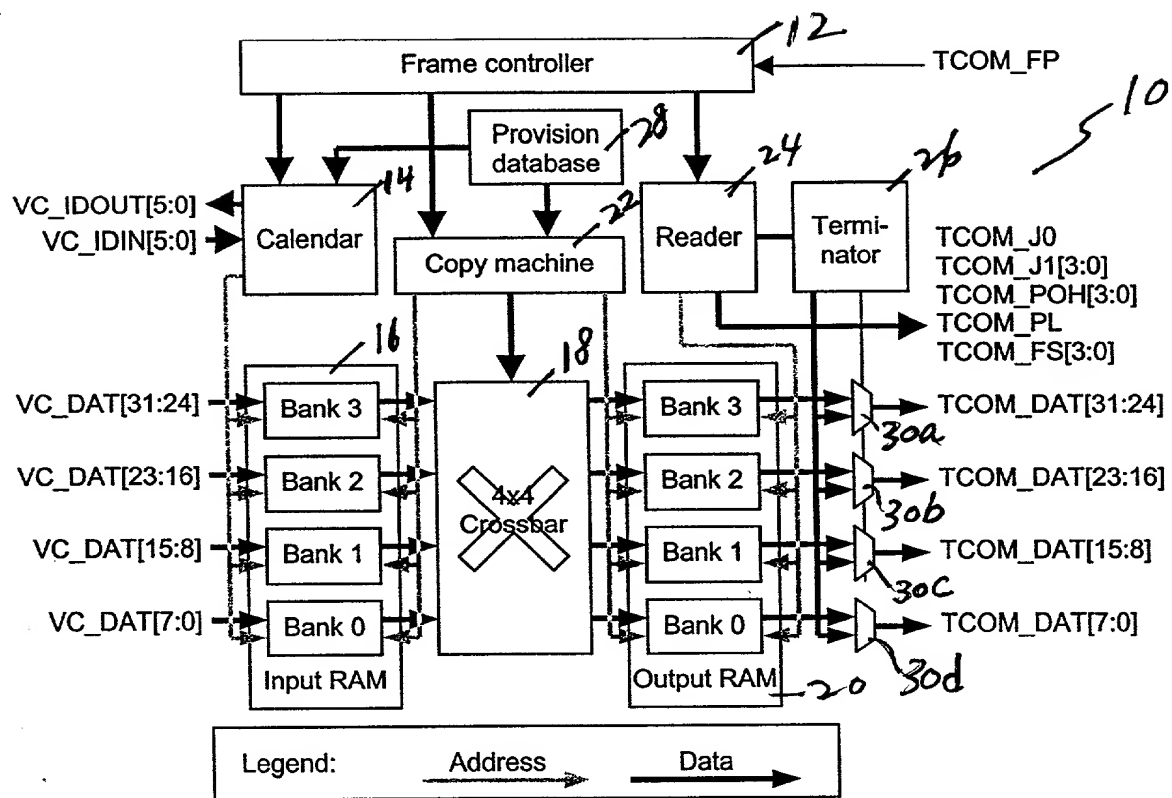


Figure 2: Block diagram of TVCP-48

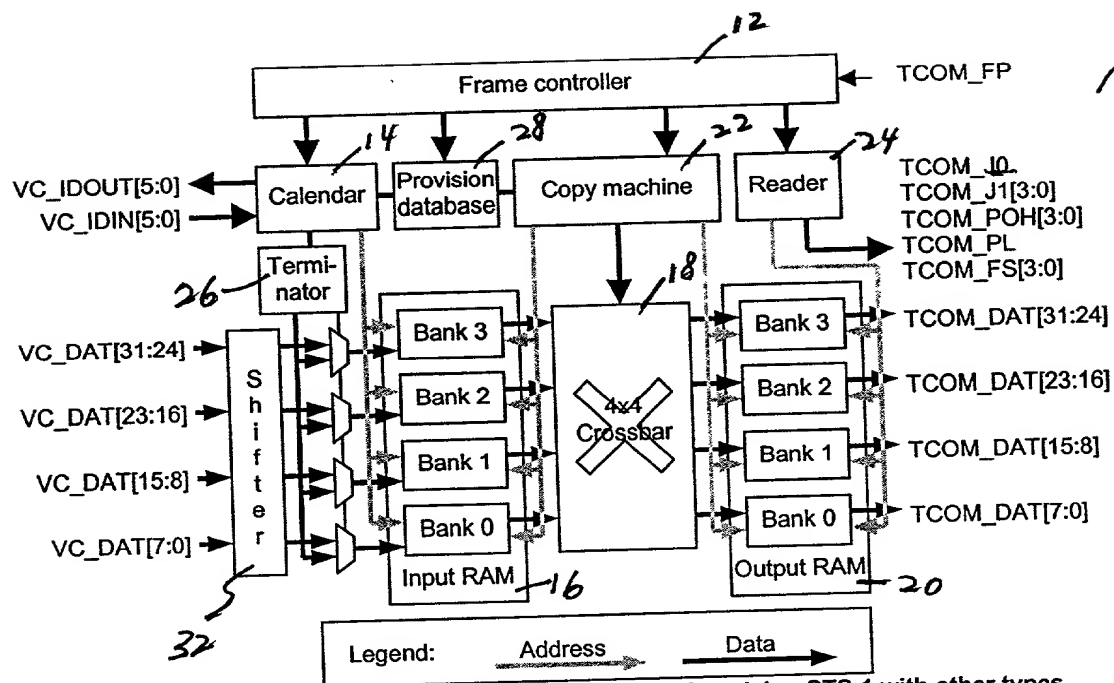


Figure 3: Block diagram of TVCP-48 with support for mixing STS-1 with other types

Fig 4a

Example Channel Mapping

Channel	0	1	2
Bandwidth	STS-1-1v	STS-1-2v	STS-1-3v
Timeslot	4	1 5	3 0 2
Sequence Number	0	0 1	0 1 2

Example Calendar and Sequence Number Setting

Fig. 4b

Timeslot	0	1	2	3	4	5
Channel	1	2	0	1	2	2
Sequence Number	1	0	2	0	0	1

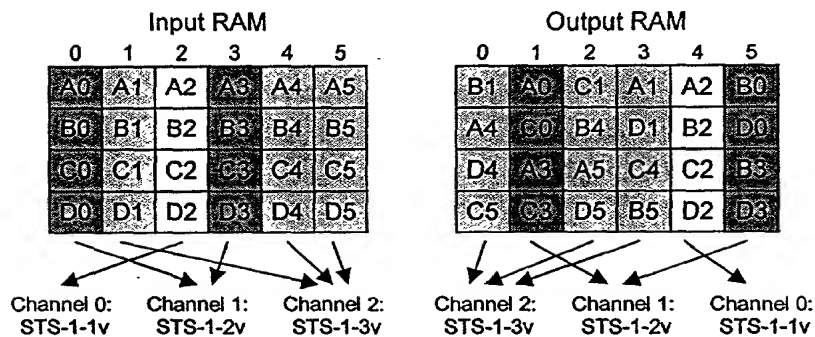
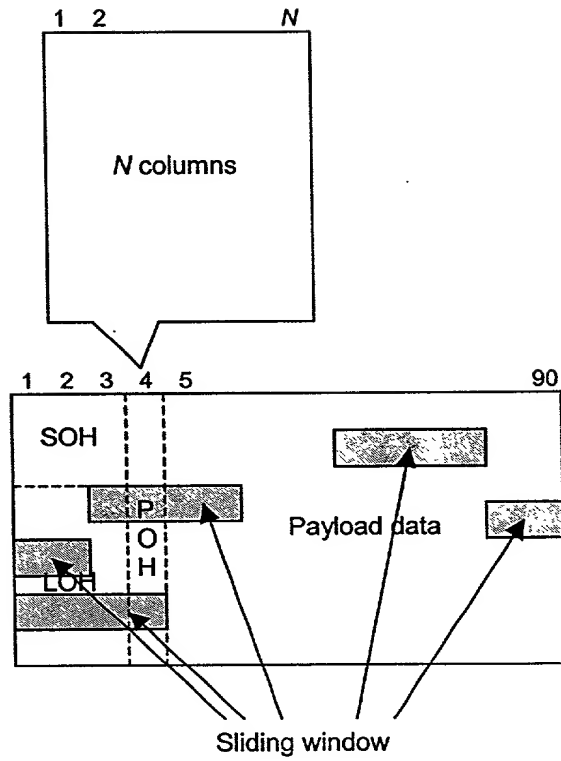


Fig 4C: Footprint of Data Bytes in Input RAM and Output RAM

### Figure 5. Data Movement from Input RAM to Output RAM



**Figure 6** Sliding Window Across a SONET/SDH Frame

**Fig. 7 SPE Mapping of Different Traffic Types**

Timeslot	1	2	3	4	5	6	7	8	9	10	11	12	1	2	...
STS-1	POH1	POH2	POH3	POH4	POH5	POH6	POH7	POH8	POH9	POH10	POH11	POH12	D1	D2	...
STS-3c	POH1	POH2	POH3	POH4	D1	D2	D3	D4	D1	D2	D3	D4	D1	D2	...
STS-12c	POH	FS	FS	FS	D	D	D	D	D	D	D	D	D	D	...
STS-24c	POH FS	FS FS	FS FS	FS FS	D D	D D	D D	D D	D D	D D	D D	D D	D D	D D	... ...
STS-36c	POH FS FS	FS FS FS	FS FS FS	FS FS FS	D D D	D D D	D D D	D D D	D D D	D D D	D D D	D D D	D D D	D D D	... ... ...
STS-48c	POH FS FS FS	FS FS FS FS	FS FS FS FS	FS FS FS FS	D D D D	D D D D	D D D D	D D D D	D D D D	D D D D	D D D D	D D D D	D D D D	D D D D	... ... ... ...

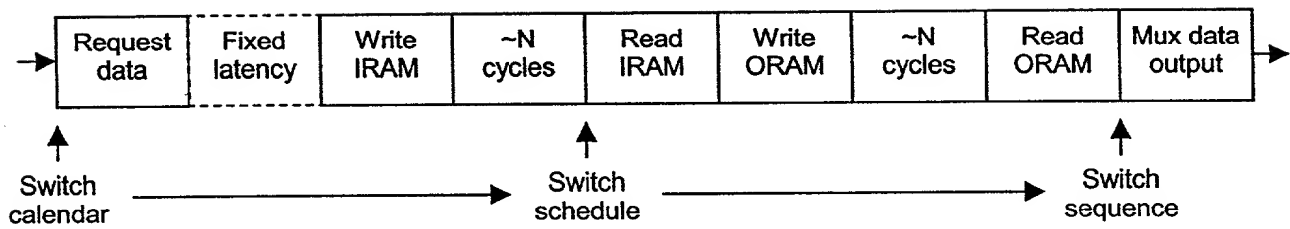
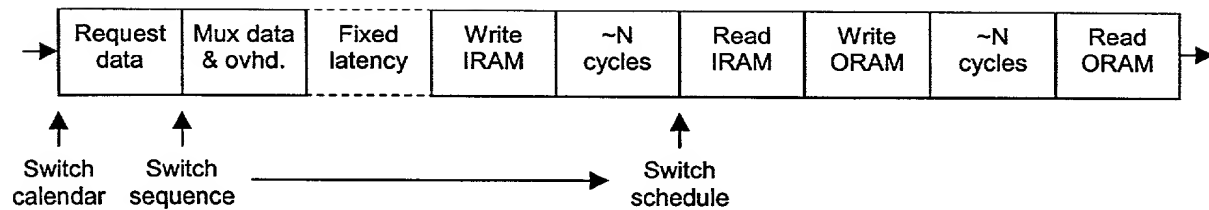
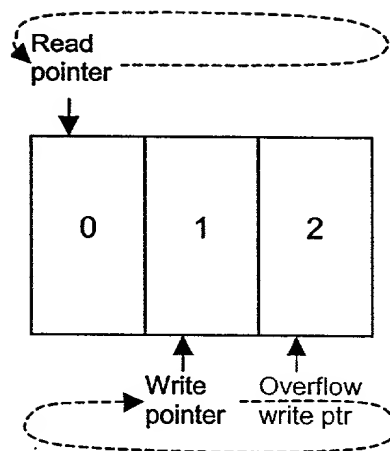


Fig. 8 : Pipeline Stages of the TVCP Datapath





**Figure 9. Pipeline Stages of the TVCP Datapath for Early Overhead Insertion**



**Fig. 10: Triple Buffer in Input RAM**